

ments, constricted in the middle, with low circumfila and two whorls of long setae; scape not clear in preparation, pedicel (14:15) subglobose; third segment (23) not confluent with and longer than fourth, with a small basal prolongation (3:6), enlargement (20:12) $1.66 \times$ its maximum thickness; fourth segment (17:12) $1.41 \times$ its maximum thickness; fifth segment (16:11) shorter and thinner than fourth, length $1.45 \times$ its maximum thickness; distal segments gradually decreasing in size; penultimate segment (12:11); terminal segment (25:10) longest of all, with apical nipple-like prolongation, length $2.50 \times$ its maximum thickness. Wing, legs, claw and abdomen as in male. *Ovipositor*: lamellate, basal lamellae (28:8) oblong, $3.50 \times$ as long as broad, terminal lamellae (14:6) oval, setose, half the length of basal and $2.33 \times$ as long as broad, ventral lamella short.

Holotype: ♂ at light, Khadkeshwar, Aurangabad, Maharashtra, India, R. M. Sharma coll. Dated 6.vii.1976. Dissected and mounted on

slide.

Allotype: ♀ and *Paratypes*, 2 ♀♀ dissected and mounted on slides, data as in Holotype. All types are deposited in the collections of Zoological Survey of India, Pune for the time being.

Remarks: This species closely resembles *A. indica* (Grover) but can be readily distinguished from it in the following set of characters: i) different number and proportions of the antennal segments; ii) basal clasp segment without apical lobe; iii) subdorsal plate being entire; iv) simple claspette and v) straight aedeagus.

ACKNOWLEDGEMENTS

I am thankful to Dr. B. K. Tikader, Director, Zoological Survey of India, Calcutta and the Officer-in-Charge, Zoological Survey of India, Pune, for facilities, I am greatly indebted to Prof. S. N. Rao (Retd.), Dept. of Zoology, Marathwada University, Aurangabad for encouragement and guidance.

REFERENCE

- GROVER, P. (1964): Studies on Indian gall-midges six new species of Indian Porricondylini. *Marcellia* XI (Cecidomyiidae: Diptera). Two new genera and 31(3): 189-229.

ON A NEW CYPRINID FISH OF THE GENUS *DANIO* HAMILTON (PISCES: CYPRINIDAE) FROM MANIPUR, INDIA¹

R. P. BARMAN²

(With a text-figure)

A new cyprinid fish of the genus *Danio* Hamilton collected from Manipur, India is being described and illustrated under the name *Danio manipurensis* in this paper. It is closely related to *Danio naganensis* Chaudhuri (1912) from Naga Hills, Nagaland from which it differs in lateral line scale, predorsal scales and dorsal fin rays counts and body depth and eye diameter.

INTRODUCTION

The cyprinid fishes of the genus *Danio* Hamilton are distributed throughout the Indian

subcontinent, Thailand, Malay Peninsula, Sumatra and China. Day (1889) recorded 10 species and Jayaram (1981) enumerated 17 species belonging to the genus *Danio* from the Indian subcontinent. Barman (1983, 1984a, 1984b, 1985) discovered four new species

¹ Accepted January 1986.

² Zoological Survey of India, Calcutta.

under the genus from India and Burma. While studying the taxonomy of the cyprinid genus *Danio* from the Indian subcontinent, 18 specimens of a species referable to the genus were found and examined. When compared with the known species under the genus, they proved to be of a hitherto undescribed species. The new species is being described under the specific name *Danio manipurensis* in this paper after its locality.

***Danio manipurensis* sp. nov.**

Material: Holotype (Fig. 1): 25 mm. SL. Reg. No. Zoological Survey of India, Calcutta FF1999. Locality: Manipur, India. Coll. Dr. S. L. Hora. Date of collection: 8.3.1920. *Paratypes*: 17 examples, 16 mm. - 38 mm. SL. Reg. No. Zoological Survey of India, Calcutta FF2000. Locality, collector and date of collection same as in holotype.

Lateral line scales 33-34.

DESCRIPTION

Head length 3.33-3.87 and body depth 3.00-3.30 in standard length. Eye diameter 2.66-3.00 in head length, 1.10-1.33 in interorbital width. Snout length 3.75-5.00 in head length, 1.50-2.00 in interorbital width. Snout shorter than eye diameter. Mouth obliquely directed upward, lower jaw longer than upper jaw, with a symphyseal knob. The maxilla extending anterior margin of the orbit. Barbels 2 pairs, the rostral pair half the length of eye diameter and maxillary pair half of the rostral pair. Minimum depth of caudal peduncle 1.20-1.25 in its length.

Scales: Lateral line complete with 33-34 scales. Lateral transverse scales 8-9; $1\frac{1}{2}$ rows of scales between lateral line and base of pelvic fin. Predorsal scales 14-15 and circum-

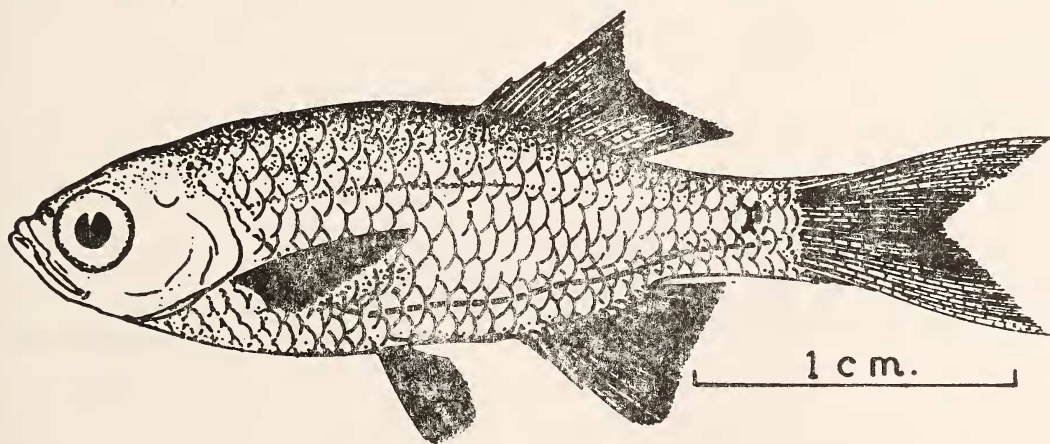


Fig. 1. Lateral view of holotype of *Danio manipurensis* sp. nov.

DIAGNOSIS

Head length 3.33-3.87 and body depth 3.00-3.30 in standard length. Eye diameter 2.66-3.00 in head length. Least depth of caudal peduncle 1.20-1.25 in its length. Barbels 2 pairs, maxillary pair shorter than rostral pair.

peduncular scales 10.

Fins: D. ii-iii, 10-11; A. ii-iii, 12-13; P. i, 12-13; V. i, 6-7; C. 19. Dorsal fin originates in the opposite interspace between pelvic and anal fin, nearer to base of caudal fin than to tip of snout. Pectoral fin extending the base of pelvic fin. Both pectoral and pelvic fin possess

scaly flap or appendages at their bases. Caudal fin emarginate, almost equal to head.

Colour in alcohol: A light darkish longitudinal straight narrow band extending from behind the head to base of caudal fin. Fins are hyaline.

Detailed measurements of different body proportions of this species are given in table 1.

Distribution: *Danio manipurensis* is known only from Manipur, India (Latitude 23.8°N to 25.8°N and Longitude 93°E to 95°E).

DISCUSSION

Danio manipurensis sp. nov. is closely related to *Danio naganensis* Chaudhuri but can be easily separated from the latter species by the much deeper body depth 3.00-3.30 vs. 3.60-4.16, longer eye diameter 2.66-3.00 vs. 3.33-4.33 in head length, least depth of caudal peduncle much deeper 1.20-1.25 vs. 1.50-2.00 in its length, fewer number of lateral line scales 33-34 vs. 40-42, dorsal fin rays more numerous 12-14 vs. 10 and predorsal scales 14-15 vs. 18-20.

ACKNOWLEDGEMENTS

I thank Dr. B. K. Tikader, Director, Zoological Survey of India, Calcutta for laboratory facilities and Dr. K. C. Jayaram, Joint Director, Zoological Survey of India, Calcutta for his valuable suggestions. I also thank Dr. P. K.

Talwar, Deputy Director, Zoological Survey of India, Calcutta for his encouragement.

TABLE I
MEASUREMENTS OF DIFFERENT BODY PROPORTIONS OF
Danio manipurensis SP. NOV.

| Proportions | Range | Mean |
|--|-----------|------|
| Standard length/Head length | 3.33-3.87 | 3.62 |
| Standard length/Body depth | 3.00-3.30 | 3.14 |
| Standard length/Predorsal distance | 1.65-1.72 | 1.67 |
| Standard length/Prepelvic distance | 2.00-2.13 | 2.07 |
| Standard length/Preanal distance | 1.59-1.68 | 1.63 |
| Standard length/Caudal peduncle length | 5.00-6.33 | 5.66 |
| Head length/Depth of head | 1.11-1.33 | 1.22 |
| Head length/Width of head | 1.60-2.00 | 1.78 |
| Head length/Eye diameter | 2.66-3.00 | 2.82 |
| Interorbital width/Eye diameter | 1.00-1.33 | 1.16 |
| Head length/Snout length | 3.75-5.00 | 4.37 |
| Interorbital width/Snout length | 1.50-2.00 | 1.75 |
| Standard length/Length of longest dorsal fin ray | 4.50-5.33 | 4.98 |
| Standard length/Length of longest anal fin ray | 5.00-6.75 | 5.90 |
| Standard length/Pectoral length | 3.85-4.57 | 4.28 |
| Standard length/Pelvic length | 6.25-8.00 | 7.16 |
| Standard length/Length of caudal fin | 3.25-3.80 | 3.58 |
| Length of caudal peduncle/Depth of caudal peduncle | 1.20-1.25 | 1.23 |

REFERENCES

- BARMAN, R. P. (1983): A new species of the genus *Danio* Hamilton from (Pisces: Cyprinidae). *Curr. Sci.*, 52(4): 177-178.
- (1984a): On a new species of the genus *Danio* Hamilton from Burma (Pisces: Cyprinidae). *Bull. zool. Surv. India*, 5(2 & 3): 31-34.
- (1984b): A new freshwater fish of the genus *Danio* Hamilton (Pisces: Cyprinidae) from Assam, India. *ibid.*, 6(1-3): 163-165.
- (1985): A new cyprinid fish of the genus *Danio* Hamilton (Pisces: Cyprinidae) from Andhra Pradesh, India. *J. Bombay nat. Hist. Soc.*, 82(3): 602-605.
- CHAUDHURI, B. L. (1912): Descriptions of some new species of freshwater fishes from North India. *Rec. Indian Mus.* 7: 437-444.
- DAY, F. (1889): The Fauna of British India, including Ceylon and Burma, Fishes, 1: i-xx, 1-548. Taylor and Francis, London.
- JAYARAM, K. C. (1981): The Freshwater Fishes of India, Pakistan, Bangladesh, Burma and Sri Lanka. A handbook. Govt. of India, i-xxii, 1-475, pls. XIII.